

ABSTRACT OF THE INVENTION

A delivery vehicle is described that is capable of being specifically bound to and taken into targeted cells, delivering numerous physiological agents, particularly paramagnetic ions for magnetic resonance imaging (MRI) of the cells. The delivery vehicle

5 comprises a polymeric molecule having a net positive charge complexed with another polymeric molecule having a net negative charge. Cell targeting moieties and physiological agents, including contrast agents and therapeutic agents, are attached to one or both of the polymeric molecules. In one embodiment, the polymeric molecule having a net negative charge is a nucleic acid. Thus, the delivery vehicles can be used

10 in clinical protocols in which nucleic acids for gene therapy and agents for MRI contrast are co-transported to specific cells allowing medical imaging monitoring of nucleic acid delivery.